

U.S. Application of Cleland et al.
POWERED OPENING MECHANISM AND CONTROL SYSTEM

ABSTRACT

A power-operated system for actuating the liftgates of motor vehicles is disclosed. The system includes a controllable strut with internal locking structure that includes a driver and a valve assembly. The controllable strut is typically mounted on one side of the liftgate between the liftgate and the vehicle's frame. Conventional strut may be mounted on the other side of the liftgate. One end of each strut is connected to a powered articulating arm. To move the liftgate between open and closed positions, the articulating arms move the controllable strut and the other strut between positions of greater and lesser mechanical advantage. During the movements, the locking structure in the controllable strut may be activated and deactivated either cyclically or continuously to momentarily to retain the controllable strut as particular lengths.